

CLAIMS

What is claimed is:

- 5 1. A method for synchronizing a plurality of alarm units, said method comprising the steps of:
 - a) sending a synchronization signal to the plurality of alarm units; and
 - 10 b) triggering the plurality of alarm units in accordance with said received synchronization signal.
- 15 2. The method of claim 1, wherein said sending step (a) comprises the step of sending a synchronization signal by interrupting a supply of power to the alarm units.
- 20 3. The method of claim 1, wherein said sending step (a) comprises the step of sending a synchronization signal by reversing a polarity of a supply of power to the alarm units.
- 25 4. The method of claim 1, wherein said sending step (a) comprises the step of sending a synchronization and control signal to a plurality of alarm units, wherein said alarm units comprise at least one audible alarm unit and at least one visual alarm unit.
5. The method of claim 4, wherein said sending step (a) comprises the step of sending a synchronization and control signal by interrupting a supply of power to the alarm units.

6. The method of claim 4, wherein said sending step (a) comprises the step of sending a synchronization and control signal by reversing a polarity of said supply of power to the alarm units.
- 5 7. The method of claim 4, wherein said sending step (a) comprises the step of sending a synchronization and control signal having at least one pulse.
8. The method of claim 7, wherein said sending step (a) comprises the step of sending said at least one pulse in a pattern for controlling the at least one audible alarm unit.
- 10 9. The method of claim 8, wherein said pattern controls a selection of an audio alarm pattern to be sounded.
- 15 10. The method of claim 9, wherein said pattern controls a silence feature of the at least one audible alarm unit.
11. The method of claim 7, wherein said sending step (a) comprises the step of sending said at least one pulse in a pattern for controlling the at least one visual alarm unit.
- 20 12. The method of claim 11, wherein said pattern controls a flash rate of the at least one visual alarm unit.
- 25 13. A method of operating an alarm unit, said method comprising the steps of:
 - a) receiving a synchronization signal from a synchronization control circuit; and

b) activating a visual signaling element of the alarm unit in accordance with said received synchronization signal.

14. The method of claim 13, wherein said activating visual signaling element step
5 (b) comprises the step of activating a flashtube of the alarm unit in accordance with said received synchronization signal.

15. The method of claim 13, wherein said receiving step (a) comprises the step of receiving a synchronization and control signal from a synchronization control circuit, and said activating step (b) comprises the step of activating an audible element of the alarm unit in accordance with said received synchronization and control signal.

16. The method of claim 15, further comprising the step of:
15 c) activating a visual signaling element of the alarm unit in accordance with said received synchronization and control signal.

17. A method of operating a synchronization unit to send a synchronization signal to a plurality of alarm units, said method comprising the steps of:
20 a) providing the plurality of alarm units with direct connection to a power source during a supervision condition; and

25 b) sending a synchronization signal from the synchronization unit to the plurality of alarm units during an alarm condition.

18. The method of claim 17, wherein said providing step (a) comprises the step of providing the plurality of alarm units with a direct connection to a power source via input terminals and output terminals.

19. The method of claim 17, wherein said sending step (b) comprises the step of sending a synchronization signal by interrupting a supply of power to the alarm units.
- 5 20. The method of claim 17, wherein said sending step (b) comprises the step of sending a synchronization signal by reversing a polarity of a supply of power to the alarm units.
- 10 21. The method of claim 17, wherein said providing step (a) provides a plurality of visual and audible alarm units with a direct connection to a power source during a supervision condition, and wherein said sending step b) sends a synchronization and control signal from the synchronization unit to the plurality of visual and audible alarm units during an alarm condition.
- 15 22. The method of claim 21, wherein said providing step (a) comprises the step of providing the plurality of alarm units with a direct connection to a power source via input terminals and output terminals.
- 20 23. The method of claim 21, wherein said sending step (b) comprises the step of sending a synchronization and control signal by interrupting a supply of power to the alarm units.
24. The method of claim 21, wherein said sending step (b) comprises the step of sending a synchronization and control signal by reversing a polarity of a supply of power to the alarm units.
- 25 25. An alarm system comprising:
a first synchronization control circuit for sending a synchronization signal to a

plurality of alarm units; and

a plurality of alarm units for receiving said first synchronization signal to indicate an alarm condition, wherein said plurality of alarm units are activated in accordance with said received synchronization signal.

5 26. The alarm system of claim 25, wherein said first synchronization control circuit and said plurality of alarm units are arranged in a two-wire loop.

10 27. The alarm system of claim 25, wherein said synchronization signal is a synchronization and control signal, and wherein said plurality of alarm units comprise at least one visual alarm unit and at least one audible alarm unit, and wherein said plurality of visual and audible alarm units are activated in accordance with said received synchronization and control signal.

15 28. The alarm system of claim 27, wherein said first synchronization control circuit and said plurality of visual and audible alarm units are arranged in a two-wire loop.

20 29. The alarm system of claim 27, wherein said synchronization control circuit generates a synchronization and control signal comprising at least one pulse.

25 30. The alarm system of claim 27, wherein said at least one pulse is in a pattern for controlling the audible alarm unit.

25 31. The alarm system of claim 27, wherein said at least one pulse is in a pattern for controlling the visual alarm unit.

32. A synchronization control circuit comprising:

first input terminals;

5 output terminals;

a switch, coupled between said first input terminals and said output terminals, for passing a supply voltage to a plurality of alarm units; and

10 a controller, coupled to said switch, for detecting an alarm condition, where upon detection of said alarm condition, said controller controls said switch to generate a synchronization signal for said plurality of alarm units.

15 33. The synchronization control circuit of claim 32, wherein said synchronization signal is an interruption of said supply voltage to said plurality of alarm units.

34. The synchronization control circuit of claim 32, wherein said synchronization signal is generated by reversing a polarity of said supply of power to the alarm units.

20 35. The synchronization control circuit of claim 32, wherein said controller controls said switch to generate a synchronization and control signal for said plurality of alarm units, wherein said plurality of alarm units comprise at least one visual alarm unit and one audible alarm unit.

25 36. The synchronization control circuit of claim 35, wherein said synchronization and control signal is an interruption of said supply voltage to said plurality of visual and audible alarm units.

37. The synchronization control circuit of claim 35, wherein said synchronization and control signal is generated by reversing a polarity of a supply of power to the visual and audible alarm units.

5 38. The synchronization control circuit of claim 35, wherein said synchronization and control signal comprises at least one pulse.

39. The synchronization control circuit of claim 38, wherein said at least one pulse is a pattern for controlling said at least one audible alarm unit.

10 40. The synchronization control circuit of claim 38, wherein said at least one pulse is a pattern for controlling said at least one visual alarm unit.

41. The synchronization control circuit of claim 35, further comprising:

15 second input terminals, coupled to said controller, for receiving a control signal from a fire alarm control panel.

42. An alarm unit comprising:

20 a signaling device; and

a controller, coupled to said signaling device, for detecting a synchronization signal to activate said signaling device.

25 43. The alarm unit of claim 42, wherein said controller comprises a synchronization trigger circuit.

44. The alarm unit of claim 42, wherein said signaling device is a visual indicator.
45. The alarm unit of claim 42, wherein said signaling device is an audible indicator.
- 5 46. The alarm unit of claim 42, wherein controller is for detecting a synchronization and control signal to activate said signaling element.
- 10 47. The alarm unit of claim 46, wherein said controller detects said synchronization and control signal comprising at least one pulse in a pattern, wherein said controller uses said pattern to silence said signaling device.
48. The alarm unit of claim 46, wherein said controller is for controlling an activation rate of said signaling element.